

CLAIM LISTING

1. (previously presented) A method for providing forward link packet data service to mobile stations (MSs) in a mobile communication system, the method comprising:

providing, by a cell in the mobile communication system, data transmission services via a forward link;

indicating, by the cell, to an MS that the cell will not provide data transmission service to the MS via the forward link in order to force the MS to select another cell for at least the forward link data transmission service.

2. (previously presented) The method of claim 1,
wherein providing data transmission services comprises providing data transmission services to the MS and wherein indicating that the cell will not provide data transmission service to the MS comprises indicating, by the cell, that the cell will no longer provide data transmission service to the MS via the forward link .

3. (previously presented) The method of claim 1,
wherein indicating to the MS that the cell will not provide data transmission service to the MS via the forward link comprises sending a channel assignment message to the MS that indicates that the cell does not support a forward link .

4. (previously presented) The method of claim 1,
wherein indicating to the MS that the cell will not provide data transmission service to the MS via the forward link comprises sending a channel assignment message to the MS that indicates that the cell is not part of an active set of the MS.

5. (previously presented) The method of claim 1, further comprising
determining whether the cell is presently available to provide data transmission service to the MS via the forward link of the cell;

6. (previously presented) The method of claim 5,
wherein determining whether the cell is presently available comprises determining, when creating an active set for the MS, whether the cell is presently available to provide data transmission service to the MS via the forward link of the cell.
7. (previously presented) The method of claim 5,
wherein determining whether the cell is presently available to provide data transmission service to the MS via the forward link of the cell comprises requesting the cell to indicate the cell's availability to provide data transmission service to the MS via the forward link of the cell.
8. (previously presented) The method of claim 5,
wherein determining whether the cell is presently available to provide data transmission service to the MS via the forward link of the cell comprises receiving an indication that the cell is presently unavailable to provide data transmission service to the MS via the forward link of the cell.
9. (previously presented) The method of claim 1, further comprising:
providing, by a serving cell in the mobile communication system, data transmission services via a forward link of the serving cell,
wherein providing data transmission services by the cell comprises providing data transmission services by a selected target cell of the MS to at least one MS in the mobile communication system other than the MS,
wherein indicating that the cell will not provide data transmission service to the MS comprises indicating, by the serving cell, that the cell will not provide data transmission service to the MS via the forward link .
10. (previously presented) The method of claim 1, wherein providing data transmission services comprises providing data transmission services to the MS by the cell via the forward link .

11. (previously presented) The method of claim 10,
wherein indicating to the MS that the cell will not provide data transmission service to the MS via the forward link comprises sending, by the cell, a Universal Handoff Direction message (UHDM) that indicates that the cell does not support a forward link .

12. (previously presented) The method of claim 10,
wherein indicating to the MS that the cell will not provide data transmission service to the MS via the forward link comprises sending, by the cell, a Universal Handoff Direction message (UHDM) that indicates that the cell is not part of an active set of the MS.

13. (previously presented) The method of claim 10,
wherein indicating to the MS that the cell will not provide data transmission service to the MS via the forward link comprises signaling, by the cell, a network initiated cancellation of the MS's present cell selection of the cell indicating a need for the MS to select an alternate cell to provide data transmission service to the MS via a forward link .

14. (canceled)

15. (previously presented) A method for providing forward link packet data service to mobile stations (MSs) in a mobile communication system, the method comprising:

providing, by a source base station (BS), data for transmission to an MS via a forward link;

receiving an indication that the MS intends to switch from a forward link of a serving cell to a forward link of a target cell for data transmission service;

determining whether the target cell is presently available to provide data transmission service to the MS via the forward link of the target cell;

sending an indication to the MS that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell.

16. (original) The method of claim 15,

wherein receiving the indication that the MS intends to switch comprises receiving the indication by the source BS from the MS via the serving cell and

wherein the source BS comprises the serving cell and is a serving BS of the MS.

17. (original) The method of claim 15,

wherein receiving the indication that the MS intends to switch comprises receiving the indication by the source BS from a serving BS and

wherein the serving BS comprises the serving cell.

18. (original) The method of claim 15,

wherein receiving the indication that the MS intends to switch comprises receiving the indication by the source BS from a target BS and

wherein the target BS comprises the target cell.

19. (previously presented) The method of claim 15,
wherein determining whether the target cell is presently available to provide data transmission service to the MS via the forward link of the target cell comprises receiving an indication that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell.
20. (original) The method of claim 19,
wherein receiving the indication that the target cell is presently unavailable comprises receiving the indication from the target cell.
21. (original) The method of claim 20,
wherein receiving the indication that the target cell is presently unavailable comprises receiving the indication from the target cell via a BSC-BTS signaling interface.
22. (original) The method of claim 19,
wherein receiving the indication that the target cell is presently unavailable comprises receiving the indication from a target BS.
23. (original) The method of claim 22,
wherein receiving the indication that the target cell is presently unavailable comprises receiving the indication from the target BS via an inter-BSC signaling interface.
24. (previously presented) The method of claim 19, further comprising:
subsequent to receiving the indication that the target cell is presently unavailable, receiving an indication that the target cell is available to provide data transmission service to the MS via the forward link of the target cell;
sending an indication to the MS that the target cell is available to provide data transmission service to the MS via the forward link of the target cell.

25. (previously presented) The method of claim 15,
wherein determining whether the target cell is presently available to provide data transmission service to the MS via the forward link of the target cell comprises sending an indication to a target BS that the MS intends to switch to the forward link of the target cell for data transmission service.
26. (previously presented) The method of claim 25,
wherein determining whether the target cell is presently available to provide data transmission service to the MS via the forward link of the target cell comprises receiving, in response to the indication that the MS intends to switch, an indication that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell.
27. (previously presented) The method of claim 15,
wherein sending the indication to the MS that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell comprises sending the indication to the MS via the serving cell.
28. (previously presented) The method of claim 15,
wherein sending the indication to the MS that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell comprises sending the indication to the MS via a serving BS.
29. (previously presented) The method of claim 15,
wherein sending the indication to the MS that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell comprises sending the indication to the MS via a forward packet data control channel (F-PDCCH) of the serving cell.

30. (previously presented) The method of claim 15,
wherein sending the indication to the MS that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell comprises sending the indication to the MS via a forward fundicated channel of a cell in an active set of the MS.

31. (previously presented) The method of claim 15,
wherein sending the indication to the MS that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell comprises sending a Universal Handoff Direction message (UHDM) that indicates that the target cell does not support a forward link .

32. (previously presented) The method of claim 15,
wherein sending the indication to the MS that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell comprises sending a Universal Handoff Direction message (UHDM) that indicates that the target cell is not part of an active set of the MS.

33. (previously presented) A method for a mobile station (MS) to maintain forward link packet data service in a mobile communication system, the method comprising:

receiving, by an MS, data transmission service from a serving cell via a forward link of the serving cell;

determining, by the MS, to switch to a target cell for data transmission service via a forward link of the target cell;

transmitting, by the MS, an indication of an MS intent to switch to the target cell;

receiving, by the MS, an indication that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell.

34. (previously presented) The method of claim 33,

wherein determining to switch to a target cell for data transmission service via a forward link of the target cell comprises performing cell selection among cells from an active set of the MS that provide forward link service.

35. (original) The method of claim 33,

wherein transmitting the indication of the MS's intent to switch to the target cell comprises transmitting the indication of the MS's intent to switch to the target cell using a switching pattern on a Reverse Channel Quality Indication Channel (R-CQICH) of the MS.

36. (previously presented) The method of claim 33,

wherein receiving the indication that the target cell is currently unavailable to provide data transmission service to the MS via the forward link of the target cell comprises receiving the indication by the MS via the serving cell.

37. (previously presented) The method of claim 33,
wherein receiving the indication that the target cell is currently unavailable to provide data transmission service to the MS via the forward link of the target cell comprises receiving the indication by the MS via a forward packet data control channel (F-PDCCH) of the serving cell.
38. (previously presented) The method of claim 33,
wherein receiving the indication that the target cell is currently unavailable to provide data transmission service to the MS via the forward link of the target cell comprises receiving the indication by the MS via the target cell.
39. (previously presented) The method of claim 33,
wherein receiving the indication that the target cell is currently unavailable to provide data transmission service to the MS via the forward link of the target cell comprises receiving a Universal Handoff Direction message (UHDM) that indicates that the target cell does not support a forward link.
40. (previously presented) The method of claim 33,
wherein receiving the indication that the target cell is currently unavailable to provide data transmission service to the MS via the forward link of the target cell comprises receiving a Universal Handoff Direction message (UHDM) that indicates that the target cell is not part of an active set of the MS.
41. (previously presented) The method of claim 33, further comprising,
subsequent to receiving the indication that the target cell is currently unavailable, receiving an indication that the target cell is available to provide data transmission service to the MS via the forward link of the target cell.

42. (previously presented) A base station (BS) comprising:
a base transceiver system (BTS)
to provide communication services to a mobile station (MS), including data transmission via a forward link;
a base site controller (BSC), communicatively coupled to the BTS,
to provide data for transmission by the BTS to the MS via the forward link,
to receive, via the BTS, an indication that the MS intends to switch from the forward link to a forward link of a target cell for data transmission service,
to determine whether the target cell is presently available to provide data transmission service to the MS via the forward link of the target cell,
and
to send, via the BTS, an indication to the MS that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell.
43. (previously presented) The BS of claim 42,
wherein the BSC receives an indication that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell when determining whether the target cell is presently available to provide data transmission service to the MS via the forward link of the target cell.
44. (previously presented) The BS of claim 42,
wherein the BSC sends an indication to a target BS that the MS intends to switch to the forward link of the target cell for data transmission service when determining whether the target cell is presently available to provide data transmission service to the MS via the forward link of the target cell.

45. (previously presented) The BS of claim 42,
wherein the BSC sends, via the BTS, a Universal Handoff Direction message (UHDM) that indicates that the target cell does not support a forward link when sending the indication to the MS that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell.

46. (previously presented) The BS of claim 42,
wherein the BSC sends, via the BTS, a Universal Handoff Direction message (UHDM) that indicates that the target cell is not part of an active set of the MS when sending the indication to the MS that the target cell is presently unavailable to provide data transmission service to the MS via the forward link of the target cell.

47. (previously presented) The BS of claim 42,
wherein the BSC sends the indication to the MS via a forward packet data control channel (F-PDCCH) of the serving cell.

48. (previously presented) A mobile station (MS) comprising:
a transceiver;
a computer processor having computer executable instructions therein,
communicatively coupled to the transceiver,
to receive, via the transceiver, data transmission service from a serving
cell via a forward link of the serving cell,
to determine to switch from the serving cell to a target cell for data
transmission service via a forward link of the target cell,
to transmit, via the transceiver, an indication of the MS's intent to switch to
the target cell, and
to receive, via the transceiver, an indication that the target cell is presently
unavailable to provide data transmission service to the MS via the
forward link of the target cell.
49. (previously presented) The MS of claim 48,
wherein the indication that the target cell is presently unavailable to provide data
transmission service to the MS via the forward link of the target cell comprises a
Universal Handoff Direction message (UHDM) that indicates that the target cell does not
support a forward link.
50. (previously presented) The MS of claim 48,
wherein the indication that the target cell is presently unavailable to provide data
transmission service to the MS via the forward link of the target cell comprises a
Universal Handoff Direction message (UHDM) that indicates that the target cell is not
part of an active set of the MS.

51. (previously presented) The MS of claim 48,
wherein the computer processor receives, via the transceiver, the indication via a forward packet data control channel (F-PDCCH) of the serving cell.

52. (previously presented) The method of claim 1, wherein indicating to the MS that the cell will not provide data transmission service to the MS via the forward link comprises signaling the MS via a forward packet data control channel (F-PDCCH) of the cell.